"A STUDY OF NEW AGE OPERATIONAL STRATEGY ADOPTED BY AUTOMOBILE AND ENGINEERING INDUSTRIES IN MAHARASHTRA."

SYNOPSIS SUBMITTED TO

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Introduction :

The topic of the study is broadly related to the areas of Production and operations management, with special focus on Cost reduction techniques , customer centricity, suistainable growth , compliance Obligations and characteristics of a Learning organizations in order to maintain the 'competitive edge of superiority' of a firm in the present ethos of global reforms and highly volatile, unpredictable, complex and ambiguous market conditions.

It is also closely connected with 'modern science of entrepreneurship', in which the companies promote 'cost cutting' along with 'enhancement of quality', sustainability ,customer centricity and maintain their market share and leadership not only in conditions of cyclical slowdowns and recessions but also in stable and normal conditions of industrial climate.

Nature of Problem :-

It is a common observation that topic of the 'Production and operations Management' and that too 'Cost Management with sustainability and compliance obligations' is very rarely chosen by the students of Advanced Management Research.

The areas of Marketing Management, Financial Management, Human Resources Management, Supply Chain Management, Materials Management, Strategic Management and in recent years Retailing Management, Insurance and Risk Management are relatively more favorite to young Management Researchers.

Production and operations Management specially requires in depth knowledge and experience of Engineering therefore it can only be opted by those MBA students who have academic background of Engineering faculty.

Since this topic has remained much unexplored, I am strongly motivated to choose

the same and endeavor to produce some original research work; which not only, will enrich this area of management but will also become immensely useful to those corporate managers who face the crisis of losing the market to their competitors and close the production wing, which makes huge losses during recession.

In Just recent past, because of Crash of Mobile phone giant Nokia , financial giants Lehman Brothers and other Financial corporations due to lending against 'sub-prime mortgages' and recession in an Automobile Industry, all over the world; many units had to shut down their production operations and were compelled to give lay-off to huge number of their employees.

The deep study of Business Cycles reveals that 'Recessions' are not only recurrent but their frequency has increased in post 1980s.

The modern age manager therefore has a much more difficult challenge to cope up with the crisis of slow downs and recessions' by grasping the advanced techniques of 'cost cutting' and, productivity raising coupled with sustainability and learning organization attitude and retaining the market share, by enhancement of quality and efficiency by the application of 'Six Sigma' and similar world class manufacturing techniques.

The research done in this field will thus be useful to enrich existing Management Theory and to improve the Management Practices too.

Scope Of Problem :-

The scope and coverage of Research Study.

The scope and coverage of this study broadly consists of following aspects.

a) The role of innovations in improving the technology, productivity, quality and reduction of the cost and price and still improving the market share and profitability of a firm.

c) 'Cost competitiveness' as a effective marketing tool.

d) World class Manufacturing Tools and Techniques- Six sigma, TPM (Total productive maintenance),TQM (Total Quality Management ,TOC (Theory of constraint), Learning organizations, Agile manufacturing. Kaizens , Pokayoke, Customer centricity.

e) The importance of the concept of 'Optimization' and Automation.

f) Quality Magement Systems (QMS- ISO 9001-2015), Environmental Management System(EMS- ISO 14001 2015)), Occupational health and safety standards(OHSAS-18001 2007), Energy management (ENMS- ISO 500001).

g) Compliance Obligations – GRI (Global reporting initiatives), CDP (Carbon declaration project), LCA(Life cycle assessment), Green certifications.

h) Factual cases studies of few selected companies (10 companies) in Industrial areas of Maharashtra State which have successfully and efficiently managed their businesses and improved their market shares in **VUCA** market conditions (**Volatile, Unpredictable, Complex , Ambiguous**) with detailed 'Break-up' of their various initiatives adopted by them to make them new age organizations.

Objectives of the Study.

1) To understand the vital role of cost competitiveness, customer centricity, Sustainability compliance obligation for long term survival of an industry.

2) To frame performance matrix for new age industries for survival in VUCA market (Volatile,Uncertain,complex and ambiguous) conditions and cyclic recessions / slowdowns.

3) To understand the Role of Automation in new age industries.

4) To establish the characteristics of leaders leading new age industries.

5) To understand how change management mechanism works in a Learning organization.

6) To judiciously separate the 'qualitative profit' from the normal 'quantitative profit' .

7) To understand which Tools and Techniques being using by new age industries for long term survival.

Research Methodology of the study.

This research study will collect the theoretical contributions as well as the authentic secondary data concerning the results of the actual cases of Cost competitiveness, Productivity and Quality enhancement initiatives, Sustainability & customer centricity Initiatives " of Indian and Global Giant Businesses like TATA Motors, Bajaj Auto,TVS Group, Crompton Greaves, General Motors, General Electric, Toyota, Honda , Mitshbishi etc.

In addition, the author of this study had a good fortune and privilege to be associated with the task of ' Productivity and quality improvement, Innovations and Cost cutting, sustainability implementation and compliance obligations ' which was assigned to him, as a member of the expert team in initial stage and later on as chief leader of the team by well known national companies like LG, Videocon Appliances, Wipro, Badve Engineering .

He has successfully been instrumental in maximum cost reduction and promoting the innovations and automation culture in companies..

Following Tools and techniques will be studied during research work..

1. **Techniques** / **Philosophies. --→** Six Sigma, Lean Six sigma, TQM (Total quality Maagement),TPM(Total productive Maintenance),TOC (Theory of constrain), Learning Organization, Green supply chain and design,CDP (Carbon disclosure Procedure),GRI(Global reporting initiatives)..
2. **Tools -→** 7 QC Tools**,** Innovation / kaizens/ Pokayoke, ,Quality circle, Automation, SMED (Single minute exchange of Die), DOE(Design of experiments), JIT (Just in Time),5S,Kanban,Benchmarking, BIQ-Built in Quality, ISO 9001, World class manufacturing.

Limitations of the study:

Limitation of the study means the potential weakness of study. Following are the limitations of the study.

1) Periodical Limitations: The primary and secondary data for last 10 years will be collected.

2) Geographical Limitations: The geographical scope of the study will be India in general and Automotive and Engineering Industries in Maharashtra state. Research will be carry out in Appx. 10 nos. industries.

3) Operational Limitations: The study is based on samples hence, limitations of sampling are also applicable.

4)Financial Lmations: Tha study also has some financial limation .

Hypothesis Of The Study :

The hypothesis for the study reads as follows.

1. The Role of Cost reduction, Quality enhancement and customer centricity is vital for survival of an organization.
2. The Role of Automation , automization, Innovation initiatives i.e. Pokayoke, Kaizens is important to maintain competitive edge in market.
3. The role of Customer centricity, Compliance Obligations, be a learning organization, dynamic and innovative managerial leader ship, sustainability approach has proven their importance for maintaining the competitive edge in the present globalized and **V**olatile, **U**ncertain, **C**omplex and **A**mbiguous business environment.
4. Efficient and quick response to change management is the key and this aspect is vitally indispensable in the conditions of cyclical slowdowns and recessions in particular .

Primary Data :

The primary data are those which are collected afresh and for the first time,and thus happen to be original in character. The primary data for the study will be collected from the appx 10 nos Large scale industries in Automotive and Engineering segments in Aurangabad and rest of the Maharashtra state. This constitute appx 28% sample size. The data will be collected by interviews, questionnaires, Physical observations. The number of respondents will be personnel from 10 industries and it will be selected meticulously i.e. data will be collected from COO, Operational excellence Manager, HR Head , Management representative and Sustainability head.

Secondary Data:

The secondary data are those which have already been collected by someone else and which have already been passed through the statistical process. The secondary data for the study will be from journals ,newspapers, thesis and from various books and magazines and websites..

Statistical tools:

Statistical tools are used for analyze the data. The statistical tools for the study will be Histogram, Graphs, Correlation, Regression, Chi square,etc.

Sample Design:

Sampling is the act, process, or technique of selecting a suitable sample, or a representative part of a population for the purpose of determining parameters or characteristics of the whole population. The sample size will be 10 industries in Maharashtra state.

Chapter Scheme.

PHD thesis will comprise following chapters.

Chapter 1- Introduction.

Chapter 2- Automobile and Engineering Industry – Current Scenario.

Chapter 3- Objectives and Research Methodology.

Chapter 4- Survey of Literature.

Chapter 5- Development of conceptual framework for Automobile and Engineering industry by using Six sigma and other world class Manufacturing techniques. (Based on secondary Data).

Chapter 6- Case studies of 10 companies and the positive results of their Achievements. (Based on Primary data),

Chapter 7 -Main findings and Observations.

Chapter 8- Conclusions and suggestions.

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